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Minister's Message

This summer, Saskatoon hosted the 2012 Pacific Northwest Economic Region (PNWER) annual summit. PNWER is a non-partisan, public-private partnership that includes Saskatchewan, Alberta, British Columbia, Yukon and the Northwest Territories in Canada; and Alaska, Oregon, Idaho, Washington and Montana in the United States.

PNWER's goals are to promote greater regional collaboration; enhance the competitiveness of the region in both domestic and international markets; leverage regional influence in Ottawa and Washington D.C.; and to achieve continued economic growth while maintaining the region's natural resources.

At the summit, I had the honour of being elected as President of PNWER for a term of one year. During my term I will represent the interests of PNWER but also bring awareness about agriculture in the region and in particular about agriculture in Saskatchewan. This role is an ideal opportunity to emphasize Saskatchewan's and the region's contribution to food security, energy security, and economic growth in both Canada and the United States.

Trade was a major focus of the summit as Saskatchewan representatives met with the member states/provinces to discuss global business and the future of economic partnerships.

The Saskatchewan Ministry of Agriculture was involved in organizing the PNWER Agriculture Working Group meeting. Discussions covered a range of topics including mutual reliance on food testing results, common approaches to food safety and registration of crop protection products.

Saskatchewan also had a major role in the summit's fifth annual Cross-Border Livestock Conference. We talked about the importance of our agricultural trading relationship with the United States and found areas to improve efficiency, especially when communicating animal health issues and cross-border disease policy. In the end, industry partners decided to support new animal welfare and disease control initiatives.

Overall, the PNWER summit in Saskatoon was a great avenue to discuss how we can work with our neighbours to grow each of our respective economies, reduce barriers to cross-border trade, and forge economic and trade partnerships. I look forward to serving as President of PNWER and will endeavour to improve awareness of not only Saskatchewan but also about agriculture in Saskatchewan during my term.

Sincerely,

Lyle Stewart

Agriculture Minister Lyle Stewart addressing delegates at the PNWER Summit.

STORY SNAPSHOTS

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Cover: The "new and improved" section of the M1 Canal after the Ministry's rehabilitation work last winter. This canal system delivers water from Lake Diefenbaker via Blackstrap Lake all the way to Lanigan. It serves towns, potash mines, wetlands, recreation and irrigation.

Saskatchewan Agriculture

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To view this publication online, visit www.agriculture.gov.sk.ca/programs-services.

Sod seeding for pasture rejuvenation

by Linda Hunt, AAg
Regional Forage Specialist, Prince Albert
Regional Services Branch

The rising cost of land has many forage and livestock producers looking for economical ways to increase the overall production of their pastures. For many producers, this is achieved through the introduction or reintroduction of legumes into an existing grass forage stand. A considerable amount of research has been done in North America to develop recommendations for various rejuvenation strategies including sod seeding.

Sod seeding appeals to producers who want to minimize the amount of time a stand is out of production, or to reduce the risk of soil erosion and weed invasion that can occur with higher soil disturbances. There are three main stages of sod seeding, including suppression of the existing stand, seeding and grazing management after seeding. Each stage needs to be evaluated on a continual basis and adjustments made to compensate for current weather patterns and stand health.

Suppression

Seedlings are typically weak and will not compete with established forage, so the existing grass stand needs to be suppressed prior to seeding. Typically the stand is treated in the fall with a non-selective herbicide, mowing or controlled overgrazing. Herbicide applications tend to suppress the existing stand longer, giving the new seedlings a better chance to get established. However, plants like pasture sage and Canada thistle can increase once the grass has been suppressed.

Seeding

The method with the greatest chance of success is direct seeding into the sod above a band of the appropriate fertilizer. Broadcast applications of seed can work, but rely more on appropriate weather and are, therefore, more risky. Seed selection and fertilizer are also important factors to consider and will increase the chance of success, if selected appropriately.

Management

Continue to manage the competitiveness of the grass stand after seeding to prevent the grass growing over the newly established seedlings. Grazing or mowing should be used until the legumes reach three to four inches high and are well established.

There are many things that producers can do to maximize their chances of success. However, the most important factor remains receiving adequate moisture at the appropriate time. Each site must be evaluated individually and a plan constructed specifically for a particular site in a particular year.

FOR MORE INFORMATION

- Contact your local Regional Forage Specialist; or
- Contact the Agriculture Knowledge Center at 1-866-457-2377.

NORTH AMERICAN FRUIT EXPLORERS

by Forrest Scharf, BA, BSA, AAg
Provincial Specialist, Fruit Crops
Crops Branch

The University of Saskatchewan's Fruit Research Program hosted the 2012 North American Fruit Explorers (NAFEX) annual conference July 18 to 21, 2012. NAFEX members have an interest in the discovery, cultivation, and appreciation of superior varieties of fruit and nuts. Some members are professional fruit scientists or nursery owners, however, most are simply keen hobbyists. Roughly 100 attendees came to Saskatoon from across North America, and their passion for fruit was obvious.

Unique talks from American representatives included: "Collecting wild temperate fruit samples in Albania" and "Breeding cold hardy quince: A potential dwarfing pear rootstock" by Joseph Postman, Curator of the National Germplasm Repository in Corvallis, Oregon; "Fruit exploring in Russia" by One Green World nursery owner Jim Gilbert; "Recent advances in growing apricots in the north" by Bob Purvis, Chairman of the Apricot Interest Group; and "Haskap breeding in Oregon" by Dr. Maxine Thompson, Professor Emeritus.

In addition, Dr. Artem Sorokin, Director of Fruit Genetic Resources at the N.I.Vavilov Institute of Plant Industry in St. Petersburg, Russia, provided an overview of haskap (*Lonicera caerulea*) breeding efforts that were started in the 1940's and continue at six different breeding centers in Russia. Haskap growers were fascinated to hear about the genetic diversity of this crop and to learn about the "centers of origin" of related *Lonicera* species. The Vavilov is the world's first genebank, and includes nine experimental stations located throughout Russia.

The genetic relationships between haskap varieties utilized at the University of Saskatchewan's Fruit Breeding Program were further discussed by University of Saskatchewan PhD candidate Eric Gerbrand. There was also a research update regarding nutraceutical phytochemicals found in haskap provided by University of Saskatchewan PhD candidate James Dawson.

FOR MORE INFORMATION

- Visit www.fruit.usask.ca/index.html, www.nafex.org, or www.oregonsworld.com; or
- Contact Forrest Scharf at forrest.scharf@gov.sk.ca.

Graduate student James Dawson shows a Haskap bush to NAFEX guest speaker Dr. Maxine Thompson.

Seeding winter wheat: planning ahead for maximum results

by Mitchell Japp, M.Sc, PAg
Provincial Specialist, Cereal Crops
Crops Branch

By the time you read this article, you may have been planning winter wheat as a strategic cropping option on your farm. This article will provide a basic summary for planting winter wheat.

Due to extreme weather in the last two years, winter wheat has been planted on land that was too wet to seed in the spring - essentially on fallowed land. Ideally, winter wheat should be direct-seeded into standing stubble, such as canola. The standing stubble helps to catch snow, which protects winter wheat from the harsh winter temperatures on the Prairies. Also remember that weed control, especially of winter annual and perennial weeds, is most effective in the fall.

Growers have a range of cultivars of winter wheat to select from. Choices range from high-yielding General Purpose class cultivars to milling-quality cultivars. Other considerations include differences in winter hardiness, crop height and susceptibility to lodging. Growers in wetter areas will likely want to avoid the very tall cultivars. Due to the early maturity of winter wheat, some diseases and pests are avoided, but a disease package suited to your area is recommended.

The optimum time for direct-seeding winter wheat into standing stubble ranges from Aug. 27 in northern Saskatchewan to Sept. 6 in the south of the province. Winter hardiness is optimized around those dates, but does not substantially decrease within two weeks on either side of the optimum date for an area. Winter hardiness is also best at a one inch seeding depth.

Traditionally, spring broadcast ammonium nitrate (34-0-0) was the N source for winter wheat. Now, ammonium nitrate is not readily available, but other options that limit N losses exist, such as urease inhibitors or polymer coated urea. Results from research conducted in 2006 indicated that timely spring broadcast N applications for most forms of N could be viable and there was little difference in yield. If phosphorus is required, it should be applied with the seed at the time of seeding.

These are some of the most important considerations that, when taken into account, will give you the highest probability of success in planting this fall's winter wheat crop.

FOR MORE INFORMATION

- Call the Agriculture Knowledge Centre at 1-866-457-2377; or
- Visit [illegible]; or
- Visit [illegible].

CONTROLLING WEEDS POST-HARVEST

by Shannon Friesen, PAg
Regional Crops Specialist, Weyburn
Regional Services Branch

The wet conditions this year prevented many fields from receiving timely in-crop weed control applications. Although pre-harvest herbicide applications can help manage perennial weeds and assist with harvest, control of certain weeds is not always effective. Post-harvest weed control is a valuable tool that can help manage those winter annual and perennial weeds that still need to be controlled.

Fall herbicide applications have been shown to be more efficient than pre-seed herbicide applications in controlling certain weeds such as Canada thistle and foxtail barley. Timing is very critical when controlling weeds in the fall. Herbicides should be sprayed in mid-to-late fall when freeze-up is approaching and when the weeds are still actively growing.

If you spray an in-crop herbicide that only suppresses top-growth on Canada thistle, make sure that the plant recovers enough and begins to re-grow before applying any post-harvest herbicides. The plant will not be able to absorb enough of the herbicide for efficient weed control to occur and you may see a continued weed problem in the springtime.

Systemic herbicides such as glyphosate, Express SG plus glyphosate and Pre-Pass are best sprayed when weeds have sufficient re-growth, are still actively growing, and are able to take up the chemical efficiently. Other herbicides such as 2,4-D and MCPA can also be applied prior to freeze-up to winter annual weeds such as stinkweed, flixweed and shepherd's-purse. However, cooler weather conditions and frost will decrease the herbicide's efficacy and may result in a lack of weed control.

Crop rotation is an important part of post-harvest weed control. Many herbicides have residuals that, when sprayed in the fall-time, may result in damage the next season if the crop is not tolerant to the herbicide. As an example, an application of 2,4-D sprayed in the fall could result in damage to a canola or flax crop the next spring. Glyphosate is the safest herbicide to use as it can be sprayed prior to seeding any crop.

FOR MORE INFORMATION

- Contact your local Regional Crops Specialist or the Agriculture Knowledge Centre at 1-866-457-2377.

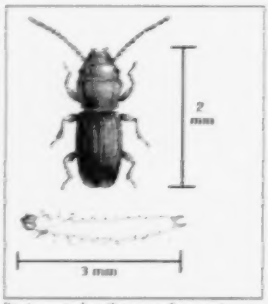
Canada thistle is best controlled in mid-to-late fall, just prior to freeze-up.

Stored grain management

by Scott Hartley, PAg
Provincial Specialist, Insect and Vertebrate Pests
Crops Branch

After harvest, management of any stored commodity is always important. Although it's too early to predict what harvest conditions will be like this fall, as a rule any late-maturing crops increase the potential for green or moist grain going into storage facilities. Effective management and monitoring procedures are critical to avoid problems related to grain heating, mould and insect infestations to maintain optimum value of the commodity.

Insect infestations are commonly associated with residual grain particles or dust in or around storage facilities. Start with clean grain handling equipment such as augers and trucks as well as bins. Remove vegetation or spilled grain around storage facilities that attract insect or rodent pests. Sweep or vacuum bins to remove any residues present before any other commodity is put into storage. Treat the bin, including cracks and crevices, with an insecticide such as malathion prior to storage of cereal grains.



Rusty grain beetle, one of several insects that can cause trouble in stored grain.

However, it is different when storing oilseeds. It is important to note that canola should not be stored in facilities treated with malathion for at least six months. The oilseeds will absorb a sufficient quantity of the insecticide to exceed minimum residue limits (MRLs) allowed for export to some countries.

Preferably, grain should be dry before being put into storage but it may be necessary to cool and dry the grain once it is in the bin. For long-term storage, grain should be cooled to below 15C as soon as possible. Drying and cooling the grain will prevent heating and fungal growth. Cool temperatures also prevent insect development and reproduction. Keep in mind that, even with the best sanitary procedures, the risk of insect re-infestations increases the longer the grain is in storage.

FOR MORE INFORMATION

- Call the Agriculture Knowledge Centre Toll-Free at 1-866-457-2377; or
- Refer to the Saskatchewan Agriculture fact sheet *Insects and Mould in Stored Grain* or to the chapter "Insect Control in Stored Grain" in the *2012 Guide to Crop Protection*.
- Also refer to article on the Canadian Grain Commission website *Maintaining quality and managing insect infestations* at [illegible]

GRAIN BAG STORAGE AND RECYCLING

by Daphne Cruise, PAg
Regional Crops Specialist, Moose Jaw
Regional Services Branch

Grain bags have become a popular alternative to bins for storing grain. Recent research from the University of Manitoba suggests canola can be stored safely in grain bags up to 10 per cent moisture. The research suggested canola at 14 per cent moisture started to spoil after six weeks of storage in the grain bags. More research is under way to determine safe storage at other moisture contents.

Temperature and the moisture and oil content of crops going into storage has an effect on safe storage times. Regardless of the type of grain being stored in a bag, there are a few points to keep in mind:

- Make sure grain bags are sealed properly;
- Keep bags close to roads so that access is not limited during winter;
- Empty bags before spring thaw to avoid potential spoilage when the bags are inaccessible due to soft fields;
- Monitor bags closely (at least once a week) at multiple spots along the bag until grain temperatures drop below 5C; then continue to monitor, but less frequently;
- Seal up wild life damage as soon as possible.

Rolled grain bags can be efficiently transported to the recycling facility.

The Provincial Council of ADD Boards (PCAB) began collecting grain bags and bale twine in July 2011 as part of the Grain Bag and Bale Twine Recycling Pilot Project. As of March 31, 2012, approximately 196,000 kg of plastic has been collected. The plastic will be transported to an Alberta facility for recycling. This pilot project, funded by the provincial and federal governments' Growing Forward framework and PCAB, helps find ways to dispose of plastic grain bags and bale twine in an environmentally responsible manner. The pilot project will run until March 31, 2014.

Between PCAB and the Moose Jaw River Watershed Stewards, there are currently 13 locations where grain bags and bale twine can be dropped off. **Macoun, Oungre, Hirsch, Moose Jaw, Milestone, Mossbank, Abbey, Unity, Viscount, Humboldt, Cudworth, Kelvington and Prince Albert.** A site at **Mankota** is collecting twine only. Grain bag rollers are available to producers to roll up loose grain bags.

FOR MORE INFORMATION

- On the Moose Jaw, Milestone and Mossbank locations, contact the Moose Jaw River Watershed Stewards at (306) 691-3399; or
- For more information on all other drop-off locations, contact PCAB at 1-866-298-7222.

Rehabilitating the Saskatoon South East Water Supply system

by Jason Drury, P. Eng.
Irrigation Engineer
Irrigation Branch

Stan Ylioja, P. Eng.
Irrigation Engineer
Irrigation Branch

Kimberly Green, P. Eng.
Irrigation Engineer
Irrigation Branch

The Saskatoon South East Water Supply (SSEWS) system supplies water from Lake Diefenbaker via the Ministry of Agriculture's East Side Pump Station and M1 Canal through a system of gravity canals and reservoirs serving six communities, three potash mines, 14 Ducks Unlimited projects and 57,000 acres of irrigation. The SSEWS system is owned and operated by Sask Water.

Saskatoon South East Water Supply system – over 110 kilometres in length

The SSEWS is over 110-kilometres long, beginning at the Broderick Reservoir and ending at Dellwood Reservoir near Lanigan. Sask Water is currently in the process of rehabilitating the SSEWS system to ensure that it can meet the current and future water needs of all its customers. The proposed Jansen potash mine is set to come online in the next few years, which will be supplied by the SSEWS and will require a large, uninterrupted supply of water.

The Ministry of Agriculture is doing its part to support this important water delivery system by rehabilitating the East Side Pump Station and M1 Canal. The Pump Station was commissioned in 1967. It has four pumps with a total combined output of 6,350 horsepower and maximum flow rate of 23 cubic metres per second.

Rehabilitation work has included the installation of new electrical switchgear, refurbishment of pump motors, replacement of the roof, removal of asbestos wallboard, replacement of wet well dewatering valves and upgrades to the cooling and ventilation system. These activities will help ensure the pump station can continue to provide an uninterrupted supply of water for existing needs and future development.

The M1 Canal was constructed in 1966 and supplies water to the SSEWS system via Broderick Reservoir. In addition, the M1 Canal provides water for 37,000 acres of irrigated lands in the South Saskatchewan River Irrigation District. On-going rehabilitation work involves enlarging the canal and installing a buried liner to prevent seepage. With an anticipated project completion date of 2020, the M1 Canal will be able to transport water for agricultural and industrial development within the Irrigation District and along the SSEWS system for many years to come.

By rehabilitating the East Side Pump Station and M1 Canal, the Ministry of Agriculture is doing its part to ensure a reliable supply of water for the SSEWS system, which in turn will continue to provide central Saskatchewan with water to meet existing needs and future growth and development.

FOR MORE INFORMATION

- Contact Jason Drury, Irrigation Engineer, at (306) 867-5518 or at [redacted].

East Side Pump Station – (L to R) aerial view; exterior view and substation; interior view.

M1 Canal – (L to R) rehabilitated Reach 2C; rehabilitation activity along Reach 2C; rehabilitated canal in foreground with deteriorated canal in background.

RFID technology has many uses

by Paul Marciniak, PAG
Livestock Development Specialist, Saskatoon
Livestock Branch

When new technology is introduced, managers often look for different ways to use it to their advantage. Radio Frequency Identification (RFID) tags were originally introduced to the livestock industry for the purpose of animal identification. Since then, there has been a great deal of software designed specifically for use with RFID tags to assist with managing all types of livestock operations.

Trent and Sandy Larson have slightly fewer than 500 ewes in their accelerated lambing program located near the town of Southey. The ewes are split into two groups. Each group lambs every eight months, meaning the Larsons have three lamb crops each year. The Larsons have been using a software program to assist with management of their flock since 2009. In addition to other benefits, the Larsons estimate they have reduced the time spent entering production data from two days when using paper records to two hours using the computer.

Shortly after birth, lambs are tagged with an RFID identifier. The weight of the lamb and the identity of its parents are recorded and linked to the RFID tag. The lambs are then weighed every time they are handled. This allows the program to calculate an average daily gain for each lamb. Recently, the Larsons shipped 270 lambs. They spent 2.5 hours weighing these lambs. Trent believes they could have weighed the lambs in less time but chose to be especially cautious and get very accurate weights.

Once the average daily gain is calculated, the rate of gain for lambs can be assessed based on either the ewe or ram that parented the lamb. This enables the Larsons to select breeding animals based on weight gains of offspring. The program also assists by assessing the performance of breeding animals based upon whether twins, triplets, quadruplets or single birth is recorded.

The software allows for customized comments and can provide customized reports based on the comments. For example, a comment stating a ewe is to be culled as well as the reason can be entered. Tags from ewes to be bred are also "read" into the computer. The computer will print a warning if any ewes designated as culls have been selected to be bred. One warning the computer cannot provide is if a ewe is selected to be bred to her father. This isn't a large concern to the Larsons but is something they would like to have.

When drugs are administered, the RFID tag is scanned and the type of drug, the reason for it's use, the quantity of drug and the date of administration are recorded. When animals are weighed for shipping and tags are read, the computer provides a warning if an animal is selected prior to the withdrawal date.

The software can select animals based on a number of criteria, such as all ewes of a given breed having had twins with an average daily weight gain greater than any chosen value.

Although Trent and Sandy are very happy with the technology, they believe they haven't yet discovered all the benefits it offers. They believe that, as more and more data are entered, the type of information they can extract is increasing as well. With more data on weight gain from more ewes and more rams, they can make better use of the information to determine which breed has the most impressive results.

FOR MORE INFORMATION

- Contact Paul Marciniak, Livestock Development Specialist, at (306) 933-6888 or email paul.marciniak@gov.sk.ca.

BSE Surveillance

Yes, Canada still has a BSE surveillance program.

Yes, BSE surveillance is still important.

Yes, every animal tested makes a difference.

YES, YOU MAKE A DIFFERENCE.

Please report your 4D (dead, dying, diseased or downer) cattle for BSE testing.

For more information, call the Canadian Food Inspection Agency at 1-866-400-4244.

Feed testing important to ensure balanced rations and cost containment

by Jessica Podhordeski, PAg
Livestock Specialist, Prince Albert
Regional Services Branch

and

by Dwayne Summach, PAg
Livestock Specialist, Kindersley
Regional Services Branch

Feed costs are a significant portion of the annual expenses on any livestock operation, so it is important not to over-feed (or under-feed) the animals. Livestock are most productive when fed a balanced ration. Unfortunately, many rations are balanced using average values, which result in over-feeding or under-feeding certain nutrients. More economical and better-balanced rations can be formulated using nutrient concentrations determined from feed analysis.

Nutrient concentration can vary considerably in feeds, especially forages. Protein in alfalfa hay can range from 10 to 25 per cent or more; grass hay will contain between four and 18 per cent protein. Non-traditional forages or other feeds not commonly raised or fed, and feeds produced under adverse weather conditions often contain a different nutrient concentration than anticipated.

To be accurate, a feed test requires a representative sample from the bales. It is recommended to take samples from 15 to 20 bales using a forage probe. Hand samples will result in less-accurate results. If you do not have a forage probe, they can be borrowed from Saskatchewan Agriculture Regional Offices. As well, a short video, "Importance of Feed Testing and How to Obtain a Proper Sample" can be viewed at www.agriculture.gov.sk.ca/web_videos.

In general, hay and green feed should be analyzed using Near Infrared Reflectance (NIR) spectroscopy or wet chemistry for dry matter (DM%), crude protein (CP%), acid detergent fibre (ADF%) and neutral detergent fibre (NDF%). Analysis of mineral content calcium (Ca%), phosphorous (P%), potassium (K%) and magnesium (Mg%) is most accurately captured using wet chemistry.

Feed testing allows you to make informed decisions and optimize animal performance. With a feed analysis, you can identify nutrient deficiencies and other factors that may cause performance, reproductive or health issues.

FOR MORE INFORMATION on feed testing or other feed related matters:

- Contact a Regional Livestock Specialists at any one of the 10 Regional Offices; or
- Call the Agriculture Knowledge Centre at 1-866-457-2377.

FALL VACCINATION CONSIDERATIONS

by Naomi Paley, BSA, PAg
Regional Livestock Specialist, Yorkton
Regional Services Branch

As we move into the latter portion of the grazing season, it is important to start thinking about weaning calves, pregnancy-checking cows and fall processing. It is also important that herd vaccination doesn't get lost in the flurry of fall activity.

There are a lot of different vaccination protocols from which to choose, so the following are a few key considerations that you can discuss with your veterinarian to help you choose a program that is best for your management system:

Boostering

Will cattle need to be run through again for a booster shot? Modified live vaccines (MLV) do not require boostering, however, in most cases these vaccines cannot be used on bred cows or heifers. Animals that have never been vaccinated require at least two doses of killed vaccine, two to four weeks apart.

Herd Health Status

Has the herd had a particular health problem recently or have new animals with unknown health histories been brought in? Vaccine protocols should be tailored to suit each herd's specific needs.

Route of Administration

Are you following the Verified Beef Production protocol? Are the products injected intramuscularly (IM) or subcutaneously (Sub-Q)? In order to be effective, vaccines need to be administered according to the label directions. For newly weaned calves, the goal of fall vaccination is to protect them from the various respiratory diseases that are common at this time of year. Since immunity takes time to develop, vaccinating calves two to three weeks before weaning will protect them from disease at weaning (the time when they are the most vulnerable). Killed vaccines should be used pre-weaning (and will need to be boostered two to four weeks later), but MLV can be used at weaning. Vaccines should include:

- Viral diseases: IBR, BRSV, PI3, and BVD;
- Bacterial diseases: *Haemophilus somnus, Mannheimia haemolytica, Pasteurella multocida;*
- Eight-way Clostridial (blackleg) booster.

First-calf heifers need to be boostered in the fall and can be given MLV vaccines (IBR, BVD, BRSV and PI3) that are approved for use in pregnant animals only if they have previously been vaccinated with the same vaccine e.g. pre-breeding vaccination. Cows and bred heifers that have not been vaccinated previously, or recently purchased bred animals with an unknown vaccine history, use the following protocol: Killed (five-way) IBR, BVD, BRSV and PI3.

Fall is also an excellent time to vaccinate bulls. Bulls should receive the same products used in the cow herd to keep them in good shape.

FOR MORE INFORMATION on fall vaccination protocols for your herd, contact your veterinarian.

Lessons learned from the 2012 Breeding for Profit bus tour

by Colby Efford, BSc, PAg
Regional Livestock Specialist, Moose Jaw
Regional Services Branch

In late June, a group of Saskatchewan livestock producers boarded a bus for a tour of progressive ranches, research facilities and feedlots. The tour wound its way through Saskatchewan and Alberta, with stops at ranches in Vermillion and Airdrie, AB, and Ponteix, SK; feedlots in Vegreville and High River, AB; the Agriculture and Agri-Food Canada Research Centre in Lacombe, AB; a beef genetics company in Balzac, AB; and a beef grading agency in High River, AB.

Each stop on the tour, organized and hosted by Saskatchewan Agriculture's regional livestock specialists, presented producers with new ideas on production, breeding or marketing that could be implemented in their own operations.

Setting Goals

An important part of herd improvement is setting goals and sticking with them. Sean McGrath of Round Rock Ranch as well as the Davidson families of Lonesome Dove Ranch and Davidson Gelbvieh have very specific goals for their operations. Sean keeps DNA samples on all his cattle and uses ultrasound as well as highly accurate expected progeny differences (EPDs) for bull selection. All replacement females are raised from his young Angus-based herd, while his older cows are bred to a terminal cross bull to add weight to his calf crop. Sean knows the ranch's cost of production and uses that to determine the price for various classes of cattle.

The 2012 Breeding for Profit tour visited progressive ranches, feedlots and research facilities in Saskatchewan and Alberta.

Lonesome Dove Ranch and Davidson Gelbvieh both raise purebred red and black Gelbvieh cattle, and Lonesome Dove also has a commercial cattle component. These ranches work hard to source and produce Gelbvieh genetics that will thrive on the dry rangeland south of Ponteix. One of their goals is to market productive and efficient Gelbvieh bulls. Ross and Tara and Vernon and Eileen Davidson explained how sourcing cattle that fit into their climate and management style has kept them successful through tough market years.

The tour also stopped at Soderglen Ranches, which has taken sire development to the next level by offering Angus, Charolais, Simmental and composite bulls. This approach allows Soderglen to focus on traits rather than specific breeds. The genetics used by Soderglen produce efficient cattle with the traits that are important to the economic and management goals of their customers.

Efficiency and Knowing your Product

Another lesson that tour participants learned was the importance of knowing their product. The group spent a morning at Agriculture and Agri-Food Canada's research station in Lacombe, Alberta, where scientists track cattle from birth to slaughter while doing research at every stage of their life cycle. Participants learned how research on residual feed intake could soon help them select cattle that perform well while consuming considerably less feed. Scientists walked tour participants through their research slaughter facility and explained how novel practices in the slaughter and preservation processes can enhance tenderness and reduce spoilage, which improves the quality of the final beef product. Fred Taylor, a professional meat grader, explained what restaurant chefs and grocery stores are looking for in cuts of beef.

Finding a Market That Works For Your Operation

The tour also stopped at two feedlots. Western Feedlots at High River is using individual animal management to help each animal reach its full potential. The feedlot gets carcass data on all cattle that are sent to the slaughter plant. Western Feedlots will provide this information to clients to help them market a more-consistent, high-quality product and is willing to share a premium with those ranches that consistently market a high-quality product.

Highland Feeders is looking for a specific type of cattle to fit into its Spring Creek Beef program, and will work with producers to make sure that their cattle will fit into the program. Producers learned that they can find niche markets and secure a premium for their product.

At the end of the tour, the participating ranchers were able to take home some tools and ideas that will have a positive impact on the profitability of their operations. Although every Saskatchewan livestock operation is different, and each has its own unique way to be profitable through different market cycles, there is always room for improvement. This bus tour provided producers with an opportunity to look at operations that are doing things differently.

FOR MORE INFORMATION on this or any upcoming tours, contact:

- Your Regional Livestock Specialist; or
- The Agriculture Knowledge Centre at 1-866-457-2377.

Seeking more information on clubroot in canola (ADF #20080153)

Clubroot is a serious disease of cruciferous crops (e.g., cabbage, turnip and canola). It has been a problem in vegetable crops in Europe and Asia for hundreds of years, but it first appeared on canola in Western Canada in a few fields near Edmonton in 2003. It was first detected in Saskatchewan in a disease survey in 2008 and then in two canola research plots in 2011. The characteristic symptom of clubroot is enlarged and disorganized growths (clubs) on infected roots, which cause major yield loss when the disease is severe. The pathogen persists in the soil for many years because of its long-lived resting spores. Also, common cruciferous weeds in Western Canada are hosts of the pathogen.

Many of the strategies for controlling clubroot in high-value vegetable crops are not practical in a field crop such as canola. Clubroot-resistant canola cultivars were released in 2009 and 2011, but experience with resistance in vegetable crops indicates that the resistance may break down under high inoculum pressure and short crop rotations. Recent results from companion projects have shown that 4 to 10 year rotations out of canola reduce clubroot severity, but most producers are unwilling to accept such long intervals between canola crops. Therefore, developing an integrated management strategy for clubroot on canola is an urgent priority.

Even though clubroot is a well known disease worldwide, there is relatively little data on factors that affect its development on canola. With the financial support from the Saskatchewan Ministry of Agriculture's Agriculture Development Fund, Dr. Bruce Gossen and his team at the Agriculture and Agri-Food Canada's Saskatoon Research Centre, along with collaborators in Alberta and Ontario, set out to study the interaction of soil temperature, soil pH (acidic or alkaline) and plant growth stage on clubroot development in canola crops.

The researchers demonstrated conclusively that temperature had an effect on both infection and symptom development of clubroot on canola and other *Brassica* crops. Both infection and symptom development started earlier and progressed more quickly at all stages of plant development at temperatures above 20C. Temperatures below 17C substantially reduced infection and symptom development. Field testing showed that seeding canola early, when the soil was still cool, delayed infection and reduced yield losses, but the effect was relatively small. Therefore, early seeding will be only one component of an integrated clubroot management strategy.

This was the first study to look at the effect of soil pH on canola, but it has long been known that raising the soil's pH helps to suppress the disease. English farmers in the 18th century would add lime or other calcium-rich products to help control clubroot in their turnip crops. The researchers found that a soil pH above 7.0 suppressed clubroot in canola, but that moderately severe symptoms could develop even in pH 8.0 when the soil was warm and wet. Clubroot was most severe when the soil temperature was 25 C and the soil pH was in the 5.0 to 6.5 range. However, the high pH soils common in Saskatchewan do not preclude the possibility of clubroot introduction.

The effect of soil texture on the development of clubroot in canola was also studied using organic soil, mineral soil and sand. The disease developed in most types of soil under warm, wet conditions. While it can appear almost anywhere, the researchers concluded that the risk of clubroot was lower on alkaline, light-textured soil and higher on acidic, compacted soil. These findings have increased our understanding of this pathogen and will help researchers identify additional Integrated Pest Management (IPM) strategies needed by our canola growers.

The Agriculture Development Fund provides funding to institutions, companies and industry organizations to help them carry out research, development and value-added activities in the agriculture and agri-food sector. The results produce new knowledge, information and choices in technologies, techniques and varieties for farmers, ranchers, processors and input suppliers, to improve the competitiveness of Saskatchewan's agriculture sector.

In 2012, the Saskatchewan Ministry of Agriculture committed $11.8 million in new funding for 60 ADF research projects.

FOR MORE INFORMATION

- Visit the Saskatchewan Agriculture research reports page at www.agriculture.gov.sk.ca/ADF/search and enter the report number (#20080153) into the search function.
- Contact the researcher, Dr. Bruce Gossen, AAFC, Saskatoon Research Centre at (306) 956-7259 or email Bruce.Gossen@agr.gc.ca.

Clubroot produces enlarged disorganized growths (clubs) on the roots of infected plants which can cause major yield loss in severe cases.

Growing Forward

Register a claim for damages to forage crops

The Saskatchewan Crop Insurance Corporation (SCIC) provides yield-loss coverage for a variety of forage crops as part of its Crop Insurance Program. For customers insuring tame hay, dehydrated alfalfa, sweetclover, greenfeed and timothy hay, the deadline to register all claims and submit your Forage Declaration is Sept. 30.

If your forage crop is damaged by an insurable cause of loss, such as excess moisture or hail, and you won't be harvesting the crop, please contact your local Crop Insurance office. An adjuster will appraise the crop before you put the crop to an alternate use, including grazing, silage or ploughing under. On acres that are not baled, the adjuster will collect clippings to help determine the potential yield of the crop.

Producers should register a claim by Sept. 30 if they have harvested a crop that was damaged or near their production guarantee. An adjuster will visit to assess the loss. In some instances, claims will be paid based on customer-submitted production information. Customer service staff will inform you if you are eligible.

Before putting your crop to an alternate use or moving production off your farm, please ensure you contact your local Crop Insurance office and provide enough time for the necessary inspections to be completed.

If you are not in a claim position, please complete and submit a Forage Declaration by Sept. 30. In 2011, SCIC established individual coverage for forage crops. By submitting production information, your coverage will be updated to be more reflective of your operation.

Wildlife Damage

Producers that are using an alternative feeding system may be eligible for compensation for crops damaged by wildlife. In a well-managed system, feed sources are left in the field to be consumed by livestock. Swath, bale and corn grazing, used as part of a well-managed feeding system, are eligible for compensation. This compensation is available to all Saskatchewan producers; a Crop Insurance contract is not required. Please contact your local Crop Insurance office as soon as you notice damage, prior to the crop being fed to livestock. SCIC will determine the actual yield of an undamaged area of the field and use this appraisal in the determination of compensation.

FOR MORE INFORMATION

- Contact your nearest Crop Insurance office;
- Call 1-888-935-0000; or
- Visit www.saskcropinsurance.com.

NEW WAY TO MEET AGRISTABILITY DEADLINE

As the Sept. 30, 2012 date to submit 2011 AgriStability program forms draws nearer, there is another option for meeting this important deadline. Earlier this year the Saskatchewan Crop Insurance Corporation (SCIC) introduced AgConnect, a new online tool that provides another way for program forms to be submitted.

AgConnect is a secure website that gives participants and their contact persons (accountants) the ability to review previous AgriStability information and submit new information to SCIC. By using AgConnect there is the potential to have your file processed quicker, because the information automatically enters SCIC's computer system and is ready for processing. Information submitted through traditional methods, such as fax or mail, still needs to be entered into the computer system, which takes additional time.

To use AgConnect, participants and their contacts need to activate their account. A letter was sent earlier this year providing the activation code and instructions for getting started. If you cannot locate this letter or need assistance in accessing the website, please contact the AgriStability Call Centre at 1-866-270-8450.

While AgConnect is a new option for working with AgriStability, the requirements for submitting program forms by Sept. 30 has not changed. Any program forms received after this date are subject to a penalty, where $500 per month is deducted from any AgriStability benefit, however, if no benefit is calculated there is no penalty applied. Dec. 31, 2012 is the final deadline for submitting program forms, with penalty.

New forms to use for the 2011 Program year

Individuals (sole proprietors) must send all supplemental information (inventories, receivables, payables, deferrals and purchased inputs) directly to SCIC. This can be done by:

- using the 2011 Supplemental Accrual Information form found at www.saskcropinsurance.com/agristability/forms; or
- using AgConnect's eForm process.

Individuals must send their tax (income and expense) information to the Canada Revenue Agency (CRA) using the T1163 form.

- An individual's tax information can also be sent to SCIC using AgConnect's eForm process.

**Corporations, co-operatives and other entities are to continue to use the Corporations/Co-operatives/Other Entities form and submit directly to SCIC.*

Completed program forms can be submitted to SCIC through a number of different options:

- Dropping it off at your local Crop Insurance office;
- Faxing it to 1-888-728-0440;
- Mailing it to:
  Saskatchewan Crop Insurance Corporation
  484 Prince William Drive
  PO Box 3000, Melville, SK S0A 2P0; or
- Online using AgConnect which can be accessed by clicking on the yellow button at www.saskcropinsurance.com.

FOR MORE INFORMATION about AgConnect or the requirements of the Sept. 30, 2012 deadline:

- Contact your nearest Crop Insurance office; or
- Visit www.saskcropinsurance.com; or
- Call 1-866-270-8450.

Gopher Control Rebate Program deadline

by Karen Williamson
Manager, Financial Services
Financial Programs Branch

The Gopher Control Rebate Program provides assistance to farmers, ranchers, Rural Municipalities (RMs) and Indian Bands for costs incurred to control gophers in 2012. The program provides rebates for 50 per cent of the costs of purchasing approved products for controlling gophers. Since the program's inception in 2008, the Ministry has provided $2.9 million worth of rebates to eligible applicants.

Gopher damage to crop and forage land in many parts of Saskatchewan has been extensive. To limit damage, many producers across the province have purchased significant quantities of gopher control products. As such, the Ministry is pleased that two per cent strychnine has received permanent registration status to help control gophers.

Producers can receive rebates on eligible gopher control products purchased between October 1, 2011 and October 1, 2012. A complete list of products covered under the program can be found at www.agriculture.gov.sk.ca/gopher-rebate.

Application forms are available from RM offices, Saskatchewan Agriculture Regional Offices or online at www.agriculture.gov.sk.ca/gopher-rebate.

Deadline for applications is November 30, 2012.

FOR MORE INFORMATION

- Call 1-866-947-9113; or
- Email gopher@gov.sk.ca.

MOVING OVERSIZED FARM EQUIPMENT ON A PROVINCIAL HIGHWAY?

If you are moving oversized farm machinery that is too wide for a traffic lane - such as a combine, tractor or swather – on a provincial highway, you might need a permit. Know before you go this harvest season and get the facts by visiting www.highways.gov.sk.ca/farm. That way you and other motorists can get home safely.

FOR MORE INFORMATION

- Contact the SGI Permit Office at 1-800-667-7575 in Saskatchewan or (306) 775-6969 out of province;
- Contact the Transport Compliance Inquiry Line at 1-866-933-5290 in Saskatchewan or (306) 933-5290 out of province;
- Call the Ministry of Highways and Infrastructure at (306) 787-5307; or
- Visit www.highways.gov.sk.ca/farm.

The Canadian Agri-Food Trade Alliance and you

by Jonathan Tremblay
Communications Consultant
Communications Branch

Whenever a litre of canola oil, a bushel of wheat or a pound of beef leaves Canadian soil, CAFTA is behind it, pushing for a healthy, open and barrier-free international marketplace. CAFTA or the Canadian Agri-Food Trade Alliance is a coalition of many regional and national organizations that support and promote free international trade of agricultural goods.

Who is CAFTA? It is a gathering of members representing 80 per cent of Canada's agriculture and agri-food exports, conducting $40 billion in business annually. With the Canola Council of Canada, the Canadian Meat Council and the Grain Growers of Canada to name a few members of CAFTA, industry is well represented on the international scene. All in all, CAFTA members directly employ nearly 500,000 Canadians in production, processing and marketing.

As farmers and ranchers work the fields of Saskatchewan, CAFTA works behind the scenes to see that our products reach profitable and emerging markets, especially those that are hungry for Saskatchewan products like China and India.

Indeed, CAFTA has applauded the recent announcement that Canada would enter into the Trans Pacific Partnership (TPP), strengthening ties to trading partners around the Pacific Ocean. This will be a new venue to promote the barrier-free international marketing environment for which CAFTA stands. And this represents a prime opportunity to promote new options for the wheat and barley growers of the Prairies.

The Saskatchewan Ministry of Agriculture supports the expansion of trade opportunities for the Agriculture industry of this province and applauds coalitions such as CAFTA that are defending the competitiveness and profitability of our producers on a world-scale.

FOR MORE INFORMATION

- Visit the CAFTA website at www.cafta.org.

SAFETY AROUND MACHINERY

by Andre Bonneau, BSA, PAg
Agriculture Health and Safety Representative
Saskatchewan Ministry of Agriculture

Incidents involving machinery account for about half of the injuries and deaths in agriculture. Everyone on the farm is at risk but the most susceptible are children, teens and senior farmers.

Here are a few things to think about as harvest approaches:

- Children love to play around machinery; make sure everyone is accounted for before starting and moving tractors and equipment.
- When in the vicinity of machinery in operation, be sure the operator sees you and is aware of your activities.
- Avoid taking extra riders. An extra body in the cab can cause distractions, reduce driver mobility and visibility, and slow reaction times to avoid incidents. Extra riders should never be permitted in a roll-over protective structure (ROPS) equipped machine if they can't be restrained by a seatbelt.
- Do not climb on, ride or dismount from moving equipment. Step down, don't jump.
- Dress properly: avoid wearing loose clothing, open-toed shoes and jewellery.
- Do not leave children unattended in the cab or on equipment, especially with the engine running. Kids love to flip switches and pull levers.
- Keep equipment in good working order and keep all guards in place.
- All operators should be properly trained.
- Get plenty of rest and take regular breaks; tired operators get stressed and stress can lead to errors in judgement.

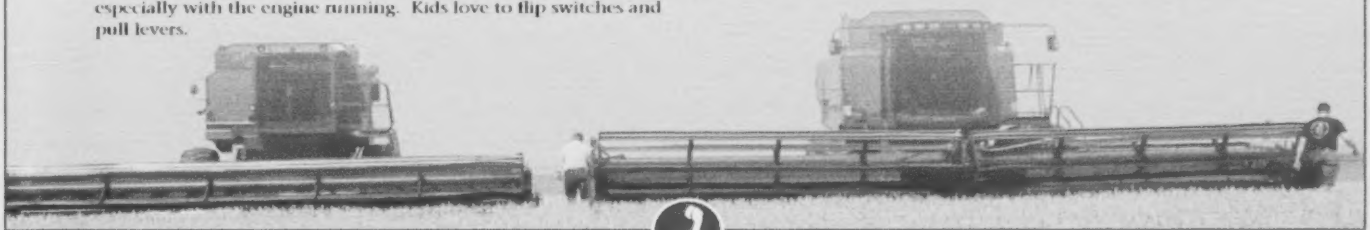
Seatbelts and ROPS

Seatbelts and roll-over protection systems (ROPS) work together and are ineffective if not used in conjunction with each other. The ROPS is designed to protect the operator and prevent the tractor from rolling over while the seatbelt keeps the operator in the seat. The seatbelt also keeps the operator in control of the tractor or implement in rough conditions or in an emergency.

FOR MORE INFORMATION

- Contact Andre Bonneau at 1-866-457-2377.

If an incident can be predicted, it can be prevented.



Safety saves lives - *One man's story of survival after contacting a power line*

It's been 13 years since a farm incident changed Curtis Weber's life. He says if he could relive the day there's only one thing he would change – his awareness of workplace safety.

"We were setting up grain bins just out by Blaine Lake," he says. "We were in the process of moving a hopper bottom underneath a power line and the operator didn't put the crane down far enough and he backed into a power line."

Standing on the ground nearby, Weber was hit with 14,400 volts of electricity three separate times. He was in intensive care in a coma for six weeks, followed by more than four months recovery in hospital.

After more than 40 operations over the course of five years, he was back doing everything he did before his injuries: hunting, fishing, snowmobiling and playing sports. He confesses workplace safety on or off the farm was never a main concern before the incident.

"You're not invincible. You have a lot of close calls with accidents, things happening in your personal life and nothing serious ever happens. And then one day, without you even knowing, in the blink of an eye, you have an injury that could have been fatal and life-changing," says Weber.

Today, Weber is a spokesperson/trainer for the Saskatchewan Workers' Compensation Board. He travels around the province telling others about his personal journey following his injury as a teenager. Weber wants to ensure everyone goes home safely at the end of the day.

SaskPower shares Weber's concern for safety. "We strongly encourage farmers to take a few moments for safety before starting any work," says Glenda Barton, SaskPower Chief Safety Officer. "Locate all overhead power lines, plan your work to stay well clear of lines, and always lower your equipment before moving it – these are some simple things farmers can do to stay safe."

Curtis Weber knows that not assessing the risks and hazards can be fatal and life changing.

RENEW YOUR PLATES AND MORE ONLINE WITH MYSGI

If harvest time is busy and you can't make it into town, renewing your licence plates is easy with SGI's convenient online service, MySGI.

Customers can do most of their business with SGI online, including renewing or cancelling their plates; making their annual driver's licence payment; viewing personal information, driver information, vehicle information and notices; requesting driver abstracts, including commercial abstracts; and scheduling Class 5 (private passenger cars and trucks) or motorcycle road test appointments.

Launched in 2010, the MySGI online service is a partnership between SGI and its network of motor licence issuers. Customers can access MySGI through their issuer's website or through SGI's website at www.sgi.sk.ca/MySGI.

"MySGI was developed to make it easier for customers to do business with SGI," said Cari Donaldson, Assistant Vice President of Licensing and Customer Services. "We know that many of our customers are very busy people and sometimes they need the convenience of being able to do business at home or anywhere else they can connect to the Internet, no matter the hour."

SGI has continued to add new features to MySGI, including the recent expansion to services for group customers (vehicle co-owners) and most company customers. These customers can now renew or cancel vehicle registrations in select registration classes, pay outstanding receivables using a credit card, update contact information and complete their annual declarations if they're on monthly payments.

Currently, declarations and renewals for group and company customers can only be done for plate classes F, LV, MT, PV and T.

"We'll be making more classes and transactions available to customers in the future. We encourage MySGI users to check the site regularly for updates," said Donaldson.

Customers who prefer to be online can now also choose to go green by receiving select SGI correspondence, such as renewal letters, by email whether or not they have MySGI accounts.

FOR MORE INFORMATION

- Visit your issuer's website; or
- Go to www.sgi.sk.ca/MySGI.

EVENTS CALENDAR

DATE	EVENT	LOCATION	PHONE	INTERNET
Sept. 5 - 6, 2012	Multi-Species Grazing Conference	Canalta Hotel, Humboldt, SK	(306) 459-2270	chairmanca@gmail.com
Sept. 15, 2012	Deadline to seed fall rye and winter wheat and be eligible for winterkill insurance.	Saskatchewan Crop Insurance Corporation	1-888-935-0000	www.saskcropinsurance.com
Sept. 30, 2012	Deadline to file Forage Declarations. Forage claims submitted between Oct. 1 and Nov. 15 may have their indemnities reduced.	Saskatchewan Crop Insurance Corporation	1-888-935-0000	www.saskcropinsurance.com
Sept. 30, 2012	Deadline to submit 2011 AgriStability program forms without penalty.	Saskatchewan Crop Insurance Corporation	1-866-270-8450	www.saskcropinsurance.com

New tools for farmers online

The Saskatchewan Soil Conservation Association has developed a new and free web-based publication called "Prairie Soils and Crops" for producers to gain scientific knowledge on soil and crop management. The publication is compiled from peer-reviewed research and edited by industry professionals. It is accessible from the Association website at www.prairiesoilsandcrops.ca.

Have something to suggest? The tools for farmers section will be a recurring feature. Contact agriview@gov.sk.ca to submit ideas for future editions.

For your smartphone or tablet

The "Farm At Hand" application for smartphones and tablets was developed in Saskatchewan and is a one-stop-shop for the management needs of your operation. From tracking your bins and commodity contracts to a detailed list of fields, this is one of many innovative tools developed in this province for farmers and rancher.

FOR MORE INFORMATION

- Visit the app website at www.farmathand.com.

CONNECTING SASKATCHEWAN BUSINESS WITH THE WORLD

TRADE CONFERENCE 2012

September 25 - 26, 2012, Radisson Hotel - Saskatoon, Saskatchewan

The STEP Trade Conference brings together successful leaders in global business to exchange ideas and network with like minded enterprises. Over the past decade, STEP Trade Conferences have become proven events to gain exposure within the exporting community in Saskatchewan. The 2012 event will provide delegates with focused, relevant information pertaining to trends confronting Saskatchewan exporters during a time of exciting growth. The conference will be of interest to Saskatchewan firms interested in and involved in international business as attendees include decision makers, influencers, exporters, service providers, key business leaders, and government officials from various levels.

The STEP Trade Conference will also include the announcement of the 2012 STEP Exporter of the Year Award which recognizes the export achievements of STEP members. The award recognizes exporting achievements of members based on the introduction of new products and services into new markets, a significant increase in export sales, a high ratio of export sales to total sales and a positive impact on the community through job creation.

Event registration, conference program updates, and 2012 Exporter of the Year Award information is available at www.sasktrade.sk.ca.

STEP
SASKATCHEWAN TRADE & EXPORT PARTNERSHIP

Saskatchewan Canada

Saskatchewan Agriculture